

Experiment Number: 99023-01

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: beta-Myrcene

CAS Number: 123-35-3

Date Report Requested: 10/19/2014

Time Report Requested: 12:49:23

First Dose M/F: NA / NA

Lab: BAT

C Number: C99023
Lock Date: 10/17/2001
Cage Range: All
Date Range: All
Reasons For Removal: All
Removal Date Range: All
Treatment Groups: All
Study Gender: Both
PWG Approval Date NONE

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Lab: BAT

**F 344/N Rat Male
0 G/KG**

DAY ON TEST	0 0 0 0 0 0 0 0 0 0									
	0 0 0 0 0 0 0 0 0 0									
ANIMAL ID	9 9 9 9 9 9 9 9 9 9									
	3 3 3 3 3 3 3 3 3 3									
	0 0 0 0 0 0 0 0 0 0									
	0 0 0 0 0 0 0 0 0 0									
	1 1 1 1 1 1 1 1 1 1									
	0 0 0 0 0 0 0 0 0 1									
	1 2 3 4 5 6 7 8 9 0									

TOTALS*Alimentary System**

Esophagus	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	10
Liver	+	+	+	+	+	+	+	+	+	+	10
Hepatodiaphragmatic Nodule					X						1
Pancreas	+	+	+	+	+	+	+	+	+	+	10
Acinus, Atrophy					1						1 1.0
Salivary Glands	+	+	+	+	+	+	+	+	+	+	10
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	10
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	10

Cardiovascular System

Blood Vessel	+	+	+	+	+	+	+	+	+	+	10
Heart	+	+	+	+	+	+	+	+	+	+	10
Inflammation, Chronic Active	1	1	1		1	1					5 1.0

Endocrine System

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	10
----------------	---	---	---	---	---	---	---	---	---	---	----

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

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Lab: BAT

**F 344/N Rat Male
0 G/KG**

DAY ON TEST										
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	9	9	9	9	9	9	9	9	9	9
ANIMAL ID	3	3	3	3	3	3	3	3	3	3
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	1
	0	0	0	0	0	0	0	0	0	1
	1	2	3	4	5	6	7	8	9	0

***TOTALS**

Hyperplasia, Focal	1	1	2	1.0
Adrenal Medulla	+	+	+	+
Islets, Pancreatic	+	+	+	+
Parathyroid Gland	+	+	+	+
Pituitary Gland	+	+	+	+
Thyroid Gland	+	+	+	+

General Body System

NONE

Genital System

Epididymis	+	+	+	+	+	+	+	+	+	+	10
Preputial Gland	+	+	+	+	+	+	+	+	+	+	10
Prostate	+	+	+	+	+	+	+	+	+	+	10
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	10
Testes	+	+	+	+	+	+	+	+	+	+	10

Hematopoietic System

Bone Marrow	+	+	+	+	+	+	+	+	+	+	10
Lymph Node		+									1
Deep Cervical, Ectasia		2									1 2.0
Deep Cervical, Hyperplasia, Lymphoid		3									1 3.0
Lymph Node, Mandibular	M	M	M	M	M	M	M	M	M	M	0
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	10

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0 G/KG**

DAY ON TEST										
	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	9	9	9	9	9	9	9	9	9	9
3	3	3	3	3	3	3	3	3	3	3
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	1
	0	0	0	0	0	0	0	0	0	1
	1	2	3	4	5	6	7	8	9	0

***TOTALS**

Spleen	+	+	+	+	+	+	+	+	+	+	10
Thymus	+	+	+	+	+	+	+	+	+	+	10

Integumentary System

Mammary Gland	+	+	+	+	+	+	+	+	+	+	10
Skin	+	+	+	+	+	+	+	+	+	+	10

Musculoskeletal System

Bone	+	+	+	+	+	+	+	+	+	+	10
------	---	---	---	---	---	---	---	---	---	---	----

Nervous System

Brain	+	+	+	+	+	+	+	+	+	+	10
-------	---	---	---	---	---	---	---	---	---	---	----

Respiratory System

Lung	+	+	+	+	+	+	+	+	+	+	10
Inflammation, Chronic	1	1	1			1		1		5	1.0
Metaplasia, Osseous								1		1	1.0
Nose	+	+	+	+	+	+	+	+	+	+	10
Trachea	+	+	+	+	+	+	+	+	+	+	10

Special Senses System

Eye	+	+	+	+	+	+	+	+	+	+	10
Harderian Gland	+	+	+	+	+	+	+	+	+	+	10
Pigmentation, Porphyrin								1		1	1.0

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**F 344/N Rat Male
0 G/KG**

DAY ON TEST										
	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	1	1	1	1
	0	0	0	0	0	0	0	0	0	1
	1	2	3	4	5	6	7	8	9	0

*TOTALS

Urinary System

Kidney	+	+	+	+		+	+	+		7
Nephropathy	1	1	1	1		1	1	1		7
Urinary Bladder	+	+	+	+	+	+	+	+	+	10

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Time Report Requested: 12:49:23

First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Male
0.25 G/KG

DAY ON TEST										
	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
9	9	9	9	9	9	9	9	9	9	9
3	3	3	3	3	3	3	3	3	3	3
ANIMAL ID	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
2	2	2	2	2	2	2	2	2	2	2
0	0	0	0	0	0	0	0	0	0	1
1	2	3	4	5	6	7	8	9	0	

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

Lymph Node

+ + 2

Deep Cervical, Ectasia

3 3 2 3.0

Deep Cervical, Hyperplasia, Lymphoid

2 2 2 2.0

Spleen

+ + + + + + + + + + 10

Integumentary System

NONE

Musculoskeletal System

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Lab: BAT

F 344/N Rat Male
0.25 G/KG

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

*TOTALS

NONE

Nervous System

NONE

Respiratory System

Nose

+ + + + + + + + + + 10

Special Senses System

Harderian Gland

+ + + + + + + + + + 10

Pigmentation, Porphyrin

1 1 1 1 1 1 1 1 1 1 3 1.0

Urinary System

Kidney

+ + + + + + + + + + 10

Nephropathy

1 1 1 1 1 1 1 1 1 1 10 1.0

Renal Tubule, Accumulation, Hyaline Droplet

2 2 2 2 2 2 2 2 2 2 10 2.0

Renal Tubule, Degeneration

1 1 1 1 1 1 1 1 1 1 10 1.0

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Lab: BAT

**F 344/N Rat Male
0.5 G/KG**

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

TOTALS*Alimentary System**

| | | | | |
|----------------------------|---|---|---|-----|
| Esophagus | + | | 1 | |
| Perforation | 4 | | 1 | 4.0 |
| Intestine Large, Cecum | + | | 1 | |
| Intestine Large, Colon | + | | 1 | |
| Intestine Large, Rectum | + | | 1 | |
| Intestine Small, Duodenum | + | | 1 | |
| Intestine Small, Ileum | + | | 1 | |
| Intestine Small, Jejunum | + | | 1 | |
| Liver | + | + | 2 | |
| Hepatodiaphragmatic Nodule | | X | 1 | |
| Pancreas | + | | 1 | |
| Salivary Glands | + | | 1 | |
| Stomach, Forestomach | + | | 1 | |
| Stomach, Glandular | + | | 1 | |

Cardiovascular System

| | | | |
|--------------|---|---|--|
| Blood Vessel | + | 1 | |
| Heart | + | 1 | |

Endocrine System

| | | | |
|-----------------|---|---|--|
| Adrenal Cortex | + | 1 | |
| Adrenal Medulla | + | 1 | |

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Lab: BAT

**F 344/N Rat Male
0.5 G/KG**

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 9 | 3 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| ANIMAL ID | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

***TOTALS**

Islets, Pancreatic + 1
 Parathyroid Gland + 1
 Pituitary Gland + 1
 Thyroid Gland + 1

General Body System

NONE

Genital System

Epididymis + 1
 Preputial Gland + 1
 Prostate + 1
 Seminal Vesicle + 1
 Testes + 1

Hematopoietic System

| | |
|--------------------------------------|----------------------|
| Bone Marrow | + 1 |
| Lymph Node | + + 4 |
| Deep Cervical, Ectasia | 2 1 1 2 4 1.5 |
| Deep Cervical, Hyperplasia, Lymphoid | 4 3 2 2 4 2.8 |
| Lymph Node, Mandibular | M 0 |
| Lymph Node, Mesenteric | + 1 |
| Spleen | + + + + + + + + + 10 |
| Atrophy | 2 1 2.0 |

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**F 344/N Rat Male
0.5 G/KG**

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

***TOTALS**

Thymus

+

1

Integumentary System

Mammary Gland

+

1

Skin

+

1

Musculoskeletal System

Bone

+

1

Skeletal Muscle

+

1

Nervous System

Brain

+

1

Respiratory System

Lung

+

1

Nose

+ + + + + + + + + +

10

Inflammation, Chronic

1

1 1.0

Trachea

+

1

Special Senses System

Eye

+

1

Harderian Gland

+ + + + + + + + + +

10

Pigmentation, Porphyrin

1 1 1 1 1 1 1 1

7 1.0

Urinary System

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0.5 G/KG**

| DAY ON TEST | | | | | | | | | | |
|---|----------------|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| | *TOTALS | | | | | | | | | |
| Kidney | + | + | A | + | + | + | + | + | + | 9 |
| Nephropathy | 1 | 1 | | 1 | 1 | 2 | 1 | 2 | 2 | 1 |
| Nephrosis | | | | | | 1 | | | | 1 |
| Renal Tubule, Accumulation, Hyaline Droplet | 3 | 2 | | 3 | 2 | 2 | 3 | 2 | 2 | 3 |
| Renal Tubule, Degeneration | 1 | 1 | | 2 | 1 | 1 | 1 | 1 | 1 | 9 |
| Urinary Bladder | | | + | | | | | | | 1 |

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1.0 G/KG

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 9 | 2 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 3 | 3 | 6 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

*TOTALS

Alimentary System

| | | |
|---------------------------|---|----|
| Esophagus | + | 1 |
| Intestine Large, Cecum | + | 1 |
| Intestine Large, Colon | + | 1 |
| Intestine Large, Rectum | + | 1 |
| Intestine Small, Duodenum | + | 1 |
| Intestine Small, Ileum | + | 1 |
| Intestine Small, Jejunum | + | 1 |
| Liver | + | 1 |
| Pancreas | + | 1 |
| Salivary Glands | + | 1 |
| Stomach, Forestomach | + | 10 |
| Stomach, Glandular | + | 1 |

Cardiovascular System

| | | |
|--------------|---|---|
| Blood Vessel | + | 1 |
| Heart | + | 1 |

Endocrine System

| | | |
|--------------------|---|---|
| Adrenal Cortex | + | 1 |
| Adrenal Medulla | + | 1 |
| Islets, Pancreatic | + | 1 |
| Parathyroid Gland | + | 1 |

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1.0 G/KG

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 9 | 2 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 3 | 3 | 6 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |

*TOTALS

Pituitary Gland + 1
Thyroid Gland + 1

General Body System

NONE

Genital System

Epididymis + 1
Preputial Gland + 1
Prostate + 1
Seminal Vesicle + 1
Testes + 1

Hematopoietic System

Bone Marrow + 1
Lymph Node + 1
Deep Cervical, Ectasia 2 1 2.0
Deep Cervical, Hyperplasia, Lymphoid 3 1 3.0
Lymph Node, Mandibular + 1
Lymph Node, Mesenteric + 1
Atrophy 1 1 1.0
Spleen + + + + + + + + + + 10
Thymus + + + + + + + + + + 10

Integumentary System

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

- 1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 99023-01

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: beta-Myrcene

CAS Number: 123-35-3

Date Report Requested: 10/19/2014

Time Report Requested: 12:49:23

First Dose M/F: NA / NA

Lab: BAT

**F 344/N Rat Male
1.0 G/KG**

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

TOTALS*Integumentary System**

| | | |
|---------------|---|---|
| Mammary Gland | + | 1 |
| Skin | + | 1 |

Musculoskeletal System

| | | |
|------|---|---|
| Bone | + | 1 |
|------|---|---|

Nervous System

| | | |
|-------|---|---|
| Brain | + | 1 |
|-------|---|---|

Respiratory System

| | | |
|-----------------------------|-----|-------|
| Lung | + | 1 |
| Congestion | 2 | 1 2.0 |
| Nose | + | 10 |
| Inflammation, Chronic | 1 1 | 1 1.0 |
| Inflammation, Suppurative | | 1 1.0 |
| Olfactory Epi, Degeneration | 1 | 2 1.0 |
| Trachea | + | 1 |

Special Senses System

| | | |
|-------------------------|-------------------|-------|
| Eye | + | 1 |
| Harderian Gland | + | 10 |
| Pigmentation, Porphyrin | 2 1 1 1 1 1 1 1 1 | 8 1.1 |

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99023-01

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: beta-Myrcene

CAS Number: 123-35-3

Date Report Requested: 10/19/2014

Time Report Requested: 12:49:24

First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Male
1.0 G/KG

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9 | 9 | 2 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| 3 | 3 | 6 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | |

*TOTALS

Urinary System

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|--------|
| Kidney | + | + | + | + | + | + | + | + | + | + | 10 |
| Nephropathy | 1 | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 8 1.0 |
| Nephrosis | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 10 1.0 |
| Renal Tubule, Accumulation, Hyaline Droplet | 2 | 2 | 1 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 10 2.1 |
| Urinary Bladder | | | | + | | | | | | | 1 |

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

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2) Mild 4) Marked

Experiment Number: 99023-01

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: beta-Myrcene

CAS Number: 123-35-3

Date Report Requested: 10/19/2014

Time Report Requested: 12:49:24

First Dose M/F: NA / NA

Lab: BAT

**F 344/N Rat Male
2.0 G/KG**

| DAY ON TEST | 0 0 0 0 0 0 0 0 0 0 | | | | | | | | | | | | | | |
|-------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--|--|--|--|--|--|--|--|--|
| | 0 0 0 0 0 0 0 0 0 0 | | | | | | | | | | | | | | |
| ANIMAL ID | 9 9 9 9 9 9 9 1 9 0 | | | | | | | | | | | | | | |
| | 3 3 3 3 3 3 3 8 3 4 | 0 0 0 0 0 0 0 0 0 0 | 0 0 0 0 0 0 0 0 0 0 | 5 5 5 5 5 5 5 5 5 5 | 0 0 0 0 0 0 0 0 0 1 | 1 2 3 4 5 6 7 8 9 0 | | | | | | | | | |

TOTALS*Alimentary System**

| | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|-----|-----|
| Esophagus | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | 10 |
| Atrophy | | | | | 2 | 2 | | | 2 | 2.0 | |
| Liver | + | + | + | + | + | + | + | + | + | + | 10 |
| Fibrosis, Focal | | | | | 1 | | | | 1 | 1.0 | |
| Inflammation, Chronic | | | | | 1 | | | | 1 | 1.0 | |
| Oral Mucosa | | | + | + | | | | | 2 | | |
| Inflammation, Chronic | | | | 2 | | | | | 1 | 2.0 | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | 10 |
| Acinus, Atrophy | | | | | 1 | | | | 1 | 1.0 | |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | 10 |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | 10 |
| Inflammation, Acute | | | | | | | | 1 | | 1 | 1.0 |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | 10 |

Cardiovascular System

| | | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|---|----|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | 10 |
|--------------|---|---|---|---|---|---|---|---|---|---|----|

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99023-01

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: beta-Myrcene

CAS Number: 123-35-3

Date Report Requested: 10/19/2014

Time Report Requested: 12:49:24

First Dose M/F: NA / NA

Lab: BAT

**F 344/N Rat Male
2.0 G/KG**

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

***TOTALS**

Heart

+ + + + + + + + + +

10

Endocrine System

Adrenal Cortex

+ + + + + + + + + +

10

Hemorrhage

Adrenal Medulla

2

1 2.0

Islets, Pancreatic

+ + + + + + + + + +

10

Parathyroid Gland

+ + + M + + + + + +

9

Pituitary Gland

+ + + + + + + + + +

10

Thyroid Gland

+ + + + + + + + + +

10

General Body System

NONE

Genital System

Epididymis

+ + + + + + + + + +

10

Degeneration

4

1 4.0

Preputial Gland

+ + + + + + + + + +

10

Prostate

+ + + + + + + + + +

10

Seminal Vesicle

+ + + + + + + + + +

10

Atrophy

4

1 4.0

Testes

+ + + + + + + + + +

10

Germinal Epith, Degeneration

2

1 2.0

Hematopoietic System

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99023-01

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: beta-Myrcene

CAS Number: 123-35-3

Date Report Requested: 10/19/2014

Time Report Requested: 12:49:24

First Dose M/F: NA / NA

Lab: BAT

**F 344/N Rat Male
2.0 G/KG**

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 1 | 9 | 0 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 8 | 3 | 4 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

*TOTALS

Hematopoietic System

| | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | 10 |
| Lymph Node, Mandibular | M | M | M | M | M | M | M | M | M | M | 0 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | 10 |
| Atrophy | 1 | | | 3 | 2 | | 1 | 1 | 2 | | 6 1.7 |
| Spleen | + | + | + | + | + | + | + | + | + | + | 10 |
| Atrophy | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 4 | 10 1.8 |
| Thymus | + | + | + | M | + | + | + | + | + | + | 9 |
| Necrosis | | | | | | | | | | | 3 1 3.0 |

Integumentary System

| | | | | | | | | | | | |
|---------------|---|---|---|---|---|---|---|---|---|---|----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | 10 |
| Skin | + | + | + | + | + | + | + | + | + | + | 10 |

Musculoskeletal System

| | | | | | | | | | | | |
|------|---|---|---|---|---|---|---|---|---|---|----|
| Bone | + | + | + | + | + | + | + | + | + | + | 10 |
|------|---|---|---|---|---|---|---|---|---|---|----|

Nervous System

| | | | | | | | | | | | |
|-------|---|---|---|---|---|---|---|---|---|---|----|
| Brain | + | + | + | + | + | + | + | + | + | + | 10 |
|-------|---|---|---|---|---|---|---|---|---|---|----|

Respiratory System

| | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|-------|
| Lung | + | + | + | + | + | + | + | + | + | + | 10 |
| Bronchus, Infiltration Cellular,
Polymorphnuclear | | | 2 | | | | | | | | 1 2.0 |

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

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2) Mild 4) Marked

Experiment Number: 99023-01

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: beta-Myrcene

CAS Number: 123-35-3

Date Report Requested: 10/19/2014

Time Report Requested: 12:49:24

First Dose M/F: NA / NA

Lab: BAT

**F 344/N Rat Male
2.0 G/KG**

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 1 | 9 | 0 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 8 | 3 | 4 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

***TOTALS**

| | | | | | |
|-----------------------------|---|---|---|---|-------|
| Inflammation, Chronic | 2 | 1 | 1 | 3 | 1.3 |
| Inflammation, Suppurative | | 3 | | | 1 3.0 |
| Nose | + | + | + | + | + |
| Inflammation, Chronic | 1 | 1 | 1 | 2 | 1 1.1 |
| Inflammation, Suppurative | | 1 | 1 | 1 | 3 1.0 |
| Olfactory Epi, Degeneration | 3 | 3 | 3 | 3 | 1 2.6 |
| Trachea | + | + | + | + | + |

Special Senses System

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|-------|
| Eye | + | + | + | + | + | + | + | + | + | + | 10 |
| Antr Chamber, Cornea, Inflammation, Suppurative | | | | | | | | | 3 | 1 | 3.0 |
| Harderian Gland | + | + | + | + | + | M | + | + | + | + | 9 |
| Pigmentation, Porphyrin | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 4 | 9 1.3 |
| Lacrimal Gland | | | | | | | + | | | | 1 |
| Zymbal's Gland | | | | | + | | | | | | 1 |

Urinary System

| | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|-------|
| Kidney | + | + | + | + | + | + | + | + | + | + | 10 |
| Nephropathy | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | | 9 1.9 |
| Nephrosis | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 1 | 3 | | 9 2.7 |
| Renal Tubule, Necrosis | | | | | | | | | 4 | 1 | 4.0 |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | 10 |

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99023-01

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: beta-Myrcene

CAS Number: 123-35-3

Date Report Requested: 10/19/2014

Time Report Requested: 12:49:24

First Dose M/F: NA / NA

Lab: BAT

**F 344/N Rat Male
4.0 G/KG**

| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 1 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

*TOTALS

Alimentary System

| | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|-------|
| Esophagus | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | 10 |
| Liver | + | + | + | + | + | + | + | + | + | 10 |
| Pancreas | + | + | + | + | + | + | + | + | + | 10 |
| Salivary Glands | + | + | + | + | + | + | + | + | + | 10 |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | 10 |
| Inflammation, Acute | 2 | 1 | 2 | 3 | 2 | 2 | 3 | 3 | 3 | |
| Ulcer | | | | | | | 2 | 3 | 2 | 5 2.4 |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | 10 |

Cardiovascular System

| | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|----|
| Blood Vessel | + | + | + | + | + | + | + | + | + | 10 |
| Heart | + | + | + | + | + | + | + | + | + | 10 |

Endocrine System

| | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | 10 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | 10 |

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

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2) Mild 4) Marked

Experiment Number: 99023-01

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: beta-Myrcene

CAS Number: 123-35-3

Date Report Requested: 10/19/2014

Time Report Requested: 12:49:24

First Dose M/F: NA / NA

Lab: BAT

**F 344/N Rat Male
4.0 G/KG**

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

***TOTALS**

| | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|----|
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | 10 |
| Parathyroid Gland | + | + | + | + | + | + | M | + | + | + | 9 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | 10 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | 10 |

General Body System

NONE

Genital System

| | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|----|
| Epididymis | + | + | + | + | + | + | + | + | + | + | 10 |
| Preputial Gland | + | + | + | + | + | + | + | + | + | + | 10 |
| Inflammation, Suppurative | | | | | | | | | | | 4 |
| Prostate | + | + | + | + | + | + | + | + | + | + | 10 |
| Seminal Vesicle | + | + | M | + | + | + | + | + | + | + | 9 |
| Testes | + | + | + | + | + | + | + | + | + | + | 10 |

1 4.0

Hematopoietic System

| | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|--------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | 10 |
| Lymph Node, Mandibular | M | M | M | M | M | M | M | M | M | M | 0 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | 10 |
| Spleen | + | + | + | + | + | + | + | + | + | + | 10 |
| Atrophy | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 10 4.0 |
| Thymus | + | + | + | + | + | + | + | + | + | + | 10 |
| Atrophy | | | | | | | | | | | 1 3.0 |

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

- 1) Minimal 3) Moderate
- 2) Mild 4) Marked

Experiment Number: 99023-01

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: beta-Myrcene

CAS Number: 123-35-3

Date Report Requested: 10/19/2014

Time Report Requested: 12:49:24

First Dose M/F: NA / NA

Lab: BAT

**F 344/N Rat Male
4.0 G/KG**

| DAY ON TEST | | | | | | | | | | |
|-------------|----------------|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| | *TOTALS | | | | | | | | | |

| | | | | | | | | | | | |
|----------|---|---|---|---|---|---|---|---|---|---|-----|
| Necrosis | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 9 | 3.8 |
|----------|---|---|---|---|---|---|---|---|---|---|-----|

Integumentary System

| | | | | | | | | | | | |
|---------------|---|---|---|---|---|---|---|---|---|---|----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | 10 |
| Skin | + | + | + | + | + | + | + | + | + | + | 10 |

Musculoskeletal System

| | | | | | | | | | | | |
|------|---|---|---|---|---|---|---|---|---|---|----|
| Bone | + | + | + | + | + | + | + | + | + | + | 10 |
|------|---|---|---|---|---|---|---|---|---|---|----|

Nervous System

| | | | | | | | | | | | |
|-------|---|---|---|---|---|---|---|---|---|---|----|
| Brain | + | + | + | + | + | + | + | + | + | + | 10 |
|-------|---|---|---|---|---|---|---|---|---|---|----|

Respiratory System

| | | | | | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|---|---|----|-----|
| Lung | + | + | + | + | + | + | + | + | + | + | 10 |
| Nose | + | + | + | + | + | + | + | + | + | + | 10 |
| Inflammation, Suppurative | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 7 | 2.0 |
| Metaplasia, Squamous | | | | | 1 | | | | | 2 | 1.5 |
| Olfactory Epi, Degeneration | 4 | 4 | 4 | 2 | 3 | 3 | 4 | 4 | 4 | 9 | 3.6 |
| Respirat Epith, Necrosis | 4 | 4 | 4 | 2 | 3 | 3 | 4 | 4 | 4 | 9 | 3.6 |
| Trachea | + | + | + | + | + | + | + | + | + | 10 | |

Special Senses System

| | | | | | | | | | | | |
|-------------------------|---|---|---|---|---|---|---|---|---|---|-----|
| Eye | + | + | + | + | + | + | + | + | + | + | 10 |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | 10 |
| Pigmentation, Porphyrin | 4 | 4 | 4 | 4 | 4 | 4 | 1 | 4 | 4 | 4 | 10 |
| | | | | | | | | | | | 3.7 |

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

- 1) Minimal 3) Moderate
- 2) Mild 4) Marked

Experiment Number: 99023-01

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: beta-Myrcene

CAS Number: 123-35-3

Date Report Requested: 10/19/2014

Time Report Requested: 12:49:24

First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Male
4.0 G/KG

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 1 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

*TOTALS

Urinary System

| | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---------|
| Kidney | + | + | + | + | + | + | + | + | + | + | 10 |
| Nephropathy | | | | | 1 | | | | | | 1 1.0 |
| Renal Tubule, Necrosis | | | | | | | | | | | 2 1 2.0 |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | 10 |

END OF MALE DATA

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99023-01

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: beta-Myrcene

CAS Number: 123-35-3

Date Report Requested: 10/19/2014

Time Report Requested: 12:49:24

First Dose M/F: NA / NA

Lab: BAT

**F 344/N Rat Female
0 G/KG**

| DAY ON TEST | 0 0 0 0 0 0 0 0 0 0 | | | | | | | | | | | | | | |
|-------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--|--|--|--|--|--|--|--|--|
| | 0 0 0 0 0 0 0 0 0 0 | | | | | | | | | | | | | | |
| ANIMAL ID | 9 9 9 9 9 9 9 9 9 9 | | | | | | | | | | | | | | |
| | 3 3 3 3 3 3 3 3 3 3 | 0 0 0 0 0 0 0 0 0 0 | 0 0 0 0 0 0 0 0 0 0 | 1 1 1 1 1 1 1 1 1 1 | 5 5 5 5 5 5 5 5 5 6 | 1 2 3 4 5 6 7 8 9 0 | | | | | | | | | |

TOTALS*Alimentary System**

| | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|-------|
| Esophagus | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | 10 |
| Liver | + | + | + | + | + | + | + | + | + | + | 10 |
| Inflammation, Chronic | 1 | | | | | | | | | | 1 1.0 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | 10 |
| Acinus, Atrophy, Focal | | | | | 1 | | | | | | 1 1.0 |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | 10 |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | 10 |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | 10 |

Cardiovascular System

| | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|-------|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | 10 |
| Heart | + | + | + | + | + | + | + | + | + | + | 10 |
| Inflammation, Chronic Active | | | | 1 | | | | | | | 1 1.0 |

Endocrine System

| | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | 10 |
|----------------|---|---|---|---|---|---|---|---|---|---|----|

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99023-01

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: beta-Myrcene

CAS Number: 123-35-3

Date Report Requested: 10/19/2014

Time Report Requested: 12:49:24

First Dose M/F: NA / NA

Lab: BAT

**F 344/N Rat Female
0 G/KG**

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |

***TOTALS**

| | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|----|
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | 10 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | 10 |
| Parathyroid Gland | + | + | + | + | + | M | + | + | + | + | 9 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | 10 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | 10 |

General Body System

NONE

Genital System

| | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|-----|----|
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | 10 |
| Ovary | + | + | + | + | + | + | + | + | + | + | 10 |
| Uterus | + | + | + | + | + | + | + | + | + | + | 10 |
| Endometrium, Hyperplasia, Cystic | | | | | | 1 | | | 1 | 1.0 | |

Hematopoietic System

| | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|-----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | 10 |
| Lymph Node | | | | | | | | | + | | 1 |
| Deep Cervical, Ectasia | | | | | | | | 3 | | 1 | 3.0 |
| Deep Cervical, Hyperplasia, Lymphoid | | | | | | | | 3 | | 1 | 3.0 |
| Lymph Node, Mandibular | M | M | M | M | M | M | M | M | M | M | 0 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | 10 |
| Spleen | + | + | + | + | + | + | + | + | + | + | 10 |
| Thymus | + | + | + | + | + | + | + | + | + | + | 10 |

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

- 1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 99023-01

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: beta-Myrcene

CAS Number: 123-35-3

Date Report Requested: 10/19/2014

Time Report Requested: 12:49:24

First Dose M/F: NA / NA

Lab: BAT

**F 344/N Rat Female
0 G/KG**

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

TOTALS*Integumentary System**

| | | | | | | | | | | | |
|---------------|---|---|---|---|---|---|---|---|---|---|----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | 10 |
| Skin | + | + | + | + | + | + | + | + | + | + | 10 |

Musculoskeletal System

| | | | | | | | | | | | |
|------|---|---|---|---|---|---|---|---|---|---|----|
| Bone | + | + | + | + | + | + | + | + | + | + | 10 |
|------|---|---|---|---|---|---|---|---|---|---|----|

Nervous System

| | | | | | | | | | | | |
|-------|---|---|---|---|---|---|---|---|---|---|----|
| Brain | + | + | + | + | + | + | + | + | + | + | 10 |
|-------|---|---|---|---|---|---|---|---|---|---|----|

Respiratory System

| | | | | | | | | | | | |
|-----------------------|---|---|---|---|---|---|---|---|---|---|-------|
| Lung | + | + | + | + | + | + | + | + | + | + | 10 |
| Inflammation, Chronic | 1 | 1 | 1 | | 1 | | | | | | 4 1.0 |
| Metaplasia, Osseous | | | | | 1 | | | | | | 1 1.0 |

| | | | | | | | | | | | |
|---------|---|---|---|---|---|---|---|---|---|---|----|
| Nose | + | + | + | + | + | + | + | + | + | + | 10 |
| Trachea | + | + | + | + | + | + | + | + | + | + | 10 |

Special Senses System

| | | | | | | | | | | | |
|-------------------------|---|---|---|---|---|---|---|---|---|---|-------|
| Eye | + | + | + | + | + | + | + | + | + | + | 10 |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | 10 |
| Pigmentation, Porphyrin | 1 | 1 | | 1 | | | | | | | 3 1.0 |

Urinary System

| | | | | | | | | | | | |
|--------|---|---|---|---|---|---|---|---|---|---|----|
| Kidney | + | + | + | + | + | + | + | + | + | + | 10 |
|--------|---|---|---|---|---|---|---|---|---|---|----|

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

- 1) Minimal 3) Moderate
- 2) Mild 4) Marked

Experiment Number: 99023-01

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: beta-Myrcene

CAS Number: 123-35-3

Date Report Requested: 10/19/2014

Time Report Requested: 12:49:25

First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Female
0 G/KG

| DAY ON TEST | | | | | | | | | | |
|-----------------|---------|---|---|---|---|---|---|---|---|-------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| | *TOTALS | | | | | | | | | |
| Nephropathy | | | | | 1 | | | | | 1 1.0 |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | 10 |

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99023-01

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: beta-Myrcene

CAS Number: 123-35-3

Date Report Requested: 10/19/2014

Time Report Requested: 12:49:25

First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Female
0.25 G/KG

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

*TOTALS

Alimentary System

| | | | | | | | | | | |
|----------------------------|---|---|---|--|--|---|---|---|-----|---|
| Liver | + | | | | | 1 | | | | |
| Hepatodiaphragmatic Nodule | X | | | | | | | | | 1 |
| Mesentery | | + | | | | | 1 | | | |
| Fat, Necrosis | | | + | | | | | 1 | | |
| | | | 2 | | | | | 1 | 2.0 | |

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

| | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|-----|--|--|--|--|
| Lymph Node | + | + | + | 3 | | | | | | |
| Deep Cervical, Ectasia | 3 | 2 | 1 | | 3 | 2.0 | | | | |
| Deep Cervical, Hyperplasia, Lymphoid | 2 | 2 | 1 | | 3 | 1.7 | | | | |

Integumentary System

NONE

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99023-01

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: beta-Myrcene

CAS Number: 123-35-3

Date Report Requested: 10/19/2014

Time Report Requested: 12:49:25

First Dose M/F: NA / NA

Lab: BAT

**F 344/N Rat Female
0.25 G/KG**

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

*TOTALS

Musculoskeletal System

NONE

Nervous System

NONE

Respiratory System

NONE

Special Senses System

Harderian Gland

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|-------|
| + | + | + | + | + | + | + | + | + | + | 10 |
| 1 | 1 | 1 | | | | | | | | 4 1.0 |

Pigmentation, Porphyrin

Urinary System

Kidney

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|-------|
| + | + | + | + | + | + | + | + | + | + | 10 |
| 1 | 1 | 1 | | | | | | | | 2 1.0 |

Nephropathy

Renal Tubule, Degeneration

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|--------|
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 10 1.0 |
| | | | | | | | | | | |

Renal Tubule, Mineralization

| | | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|-------|
| 1 | | | | | | | | | | 2 1.0 |
| | | | | | | | | | | |

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99023-01

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: beta-Myrcene

CAS Number: 123-35-3

Date Report Requested: 10/19/2014

Time Report Requested: 12:49:25

First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Female
0.5 G/KG

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

*TOTALS

Alimentary System

| | | |
|----------------------------|---|---|
| Liver | + | 1 |
| Hepatodiaphragmatic Nodule | X | 1 |

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

| | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|----|-----|
| Lymph Node | + | + | + | + | + | + | 5 | |
| Deep Cervical, Ectasia | 1 | 1 | | | 1 | 3 | 4 | 1.5 |
| Deep Cervical, Hyperplasia, Lymphoid | 2 | 3 | 3 | | 2 | 2 | 5 | 2.4 |
| Spleen | + | + | + | + | + | + | 10 | |
| Thymus | | | | | + | | 1 | |
| Hemorrhage | | | | | 2 | | 1 | 2.0 |

Integumentary System

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

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- 2) Mild 4) Marked

Experiment Number: 99023-01

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: beta-Myrcene

CAS Number: 123-35-3

Date Report Requested: 10/19/2014

Time Report Requested: 12:49:25

First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Female
0.5 G/KG

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

*TOTALS

NONE

Musculoskeletal System

NONE

Nervous System

NONE

Respiratory System

Nose

+ + + + + + + + + + 10

Special Senses System

Harderian Gland

+ + + + + + + + + + 10

Pigmentation, Porphyrin

1 1 2 1.0

Urinary System

Kidney

+ + + + + + + + + + 10

Nephropathy

1 1 3 1.0

Renal Tubule, Degeneration

1 1 1 1 1 1 1 1 1 10 1.0

Renal Tubule, Mineralization

1 1 1 1.0

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99023-01

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: beta-Myrcene

CAS Number: 123-35-3

Date Report Requested: 10/19/2014

Time Report Requested: 12:49:25

First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Female
1.0 G/KG

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 9 | 9 | 9 | 9 | 6 | 9 | 9 | 9 | 9 |
| | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

TOTALS*Alimentary System**

| | | | | | | | | | | | |
|----------------------------|---|---|---|-------|---|---|---|---|---|---|----|
| Esophagus | | + | | 1 | | | | | | | |
| Intestine Large, Cecum | | + | | 1 | | | | | | | |
| Intestine Large, Colon | | + | | 1 | | | | | | | |
| Intestine Large, Rectum | | + | | 1 | | | | | | | |
| Intestine Small, Duodenum | | + | | 1 | | | | | | | |
| Intestine Small, Ileum | | + | | 1 | | | | | | | |
| Intestine Small, Jejunum | | + | | 1 | | | | | | | |
| Liver | | + | + | 2 | | | | | | | |
| Fibrosis, Focal | | | 1 | 1 1.0 | | | | | | | |
| Hepatodiaphragmatic Nodule | | X | | 1 | | | | | | | |
| Inflammation, Chronic | | | 1 | 1 1.0 | | | | | | | |
| Pancreas | | + | | 1 | | | | | | | |
| Salivary Glands | | + | | 1 | | | | | | | |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | 10 |
| Stomach, Glandular | | | + | | | | | | | | 1 |

Cardiovascular System

| | | | | |
|--------------|--|---|--|---|
| Blood Vessel | | + | | 1 |
| Heart | | + | | 1 |
| | | | | |

Endocrine System

| | | | | |
|----------------|--|---|--|---|
| Adrenal Cortex | | + | | 1 |
| | | | | |

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99023-01

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: beta-Myrcene

CAS Number: 123-35-3

Date Report Requested: 10/19/2014

Time Report Requested: 12:49:25

First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Female
1.0 G/KG

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

***TOTALS**

Adrenal Medulla + 1
 Islets, Pancreatic + 1
 Parathyroid Gland + 1
 Pituitary Gland + 1
 Thyroid Gland + 1

General Body System

NONE

Genital System

Clitoral Gland + 1
 Ovary + 1
 Uterus + 1

Hematopoietic System

| | | |
|--------------------------------------|---|---------|
| Bone Marrow | | + 1 |
| Lymph Node | + | 1 |
| Deep Cervical, Hyperplasia, Lymphoid | 3 | 1 3.0 |
| Lymph Node, Mandibular | | M 0 |
| Lymph Node, Mesenteric | + | + 3 |
| Atrophy | 1 | 1 2 1.0 |
| Spleen | + | + 10 |
| Atrophy | | 1 1.0 |
| Thymus | + | + 10 |

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

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Lab: BAT

F 344/N Rat Female
1.0 G/KG

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 9 | 9 | 9 | 9 | 6 | 9 | 9 | 9 | 9 |
| | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

TOTALS*Integumentary System**

| | | |
|---------------|---|---|
| Mammary Gland | + | 1 |
| Skin | + | 1 |

Musculoskeletal System

| | | |
|------|---|---|
| Bone | + | 1 |
|------|---|---|

Nervous System

| | | |
|-------|---|---|
| Brain | + | 1 |
|-------|---|---|

Respiratory System

| | | |
|-----------------------------|---------------------|-------|
| Lung | + | 1 |
| Vein, Thrombosis | 2 | 1 2.0 |
| Nose | + + + + + + + + + + | 10 |
| Inflammation, Chronic | 1 1 1 1 1 1 1 1 1 1 | 9 1.0 |
| Inflammation, Suppurative | 1 | 1 1.0 |
| Olfactory Epi, Degeneration | 2 | 2 1.5 |
| Respirat Epith, Necrosis | 1 | 1 1.0 |

| | | |
|---------|---|---|
| Trachea | + | 1 |
|---------|---|---|

Special Senses System

| | | |
|-------------------------|---------------------|-------|
| Eye | + | 1 |
| Harderian Gland | + + + + + + + + + + | 10 |
| Pigmentation, Porphyrin | 1 | 4 1.0 |

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

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Experiment Number: 99023-01

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: beta-Myrcene

CAS Number: 123-35-3

Date Report Requested: 10/19/2014

Time Report Requested: 12:49:25

First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Female
1.0 G/KG

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9 | 9 | 9 | 9 | 9 | 6 | 9 | 9 | 9 | 9 | 9 |
| 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | |

*TOTALS

Urinary System

| | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|--------|
| Kidney | + | + | + | + | + | + | + | + | + | + | 10 |
| Nephropathy | | 1 | 1 | | 1 | | | 1 | | | 4 1.0 |
| Nephrosis | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 10 1.0 |
| Renal Tubule, Mineralization | | | | | | 1 | | | | 1 | 1.0 |
| Urinary Bladder | | | | | + | | | | | 1 | |

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+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

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- 2) Mild 4) Marked

Experiment Number: 99023-01

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: beta-Myrcene

CAS Number: 123-35-3

Date Report Requested: 10/19/2014

Time Report Requested: 12:49:25

First Dose M/F: NA / NA

Lab: BAT

**F 344/N Rat Female
2.0 G/KG**

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

TOTALS*Alimentary System**

| | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|-------|
| Esophagus | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | 10 |
| Atrophy | | | | | | 3 | | | | | 1 3.0 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | 10 |
| Atrophy | | | | | | 3 | | | | | 1 3.0 |
| Liver | + | + | + | + | + | + | + | + | + | + | 10 |
| Bile Duct, Hyperplasia | | | | | | | | 1 | | | 1 1.0 |
| Hepatodiaphragmatic Nodule | | X | | | | | | | | 1 | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | 10 |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | 10 |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | 10 |
| Inflammation, Acute | 1 | | 2 | | | 2 | | | 2 | | 4 1.8 |
| Ulcer | | | | | | 3 | | | 2 | | 2 2.5 |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | 10 |

Cardiovascular System

| | | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|---|----|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | 10 |
| Heart | + | + | + | + | + | + | + | + | + | + | 10 |

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

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Experiment Number: 99023-01

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: beta-Myrcene

CAS Number: 123-35-3

Date Report Requested: 10/19/2014

Time Report Requested: 12:49:25

First Dose M/F: NA / NA

Lab: BAT

**F 344/N Rat Female
2.0 G/KG**

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

TOTALS*Endocrine System**

| | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | 10 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | 10 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | 10 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | 10 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | 10 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | 10 |

General Body System

NONE

Genital System

| | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|-----|----|
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | 10 |
| Ovary | + | + | + | + | + | + | + | + | + | + | 10 |
| Uterus | + | + | + | + | + | + | + | + | + | + | 10 |
| Endometrium, Hyperplasia, Cystic | | | | | | 1 | | | 1 | 1.0 | |

Hematopoietic System

| | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|-----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | 10 |
| Lymph Node | | | | | | | | | | 1 | |
| Deep Cervical, Ectasia | | | | | | | 1 | | | 1 | 1.0 |
| Deep Cervical, Hyperplasia, Lymphoid | | | | | | | 3 | | | 1 | 3.0 |
| Lymph Node, Mandibular | M | M | M | M | M | M | M | M | M | M | 0 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | 10 |

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

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M ..Missing tissue

X ..Lesion present

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 2) Mild 4) Marked

Experiment Number: 99023-01

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: beta-Myrcene

CAS Number: 123-35-3

Date Report Requested: 10/19/2014

Time Report Requested: 12:49:25

First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Female
2.0 G/KG

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

***TOTALS**

| | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|--------|
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | 10 |
| Atrophy | | | | | 1 | 3 | 1 | 2 | | | 4 1.8 |
| Spleen | + | + | + | + | + | + | + | + | + | + | 10 |
| Atrophy | 1 | 1 | 1 | 4 | 1 | 1 | 3 | 3 | 1 | 2 | 10 1.8 |
| Thymus | + | + | + | + | + | + | + | + | + | + | 10 |
| Atrophy | | | | | | | 3 | | | | 1 3.0 |
| Necrosis | | 1 | | | | 1 | | 2 | | | 3 1.3 |

Integumentary System

| | | | | | | | | | | | |
|---------------|---|---|---|---|---|---|---|---|---|---|----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | 10 |
| Skin | + | + | + | + | + | + | + | + | + | + | 10 |

Musculoskeletal System

| | | | | | | | | | | | |
|------|---|---|---|---|---|---|---|---|---|---|----|
| Bone | + | + | + | + | + | + | + | + | + | + | 10 |
|------|---|---|---|---|---|---|---|---|---|---|----|

Nervous System

| | | | | | | | | | | | |
|-------|---|---|---|---|---|---|---|---|---|---|----|
| Brain | + | + | + | + | + | + | + | + | + | + | 10 |
|-------|---|---|---|---|---|---|---|---|---|---|----|

Respiratory System

| | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|-------|
| Lung | + | + | + | + | + | + | + | + | + | + | 10 |
| Inflammation, Chronic | 1 | 1 | | | | 1 | | | 1 | | 4 1.0 |
| Metaplasia, Osseous | | | | | 1 | | | | | | 1 1.0 |
| Nose | + | + | + | + | + | + | + | + | + | + | 10 |
| Inflammation, Chronic | 2 | 1 | 1 | | 2 | | | | | | 4 1.5 |
| Inflammation, Suppurative | 1 | 1 | 1 | 2 | | 4 | | 1 | | | 6 1.7 |

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2) Mild 4) Marked

Experiment Number: 99023-01

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: beta-Myrcene

CAS Number: 123-35-3

Date Report Requested: 10/19/2014

Time Report Requested: 12:49:25

First Dose M/F: NA / NA

Lab: BAT

**F 344/N Rat Female
2.0 G/KG**

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 9 | 9 | 0 | 9 | 9 | 0 | 8 | 9 | 0 |
| | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 7 | 3 | 2 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

***TOTALS**

| | | | | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|---|---|-----|
| Olfactory Epi, Degeneration | 3 | 3 | 3 | 4 | 2 | 3 | | 2 | 7 | 2.9 |
| Respirat Epith, Necrosis | | 2 | | | | 3 | | | 2 | 2.5 |
| Trachea | | + | + | + | + | + | + | + | + | 10 |
| Inflammation, Chronic | | | 2 | | | | | | 1 | 2.0 |

Special Senses System

| | | | | | | | | | | |
|-------------------------|---|---|---|---|---|---|---|---|---|-------|
| Eye | + | + | + | + | + | + | + | + | + | + |
| Cataract | | 3 | | | | | | | 1 | 3.0 |
| Postr Chamber, Exudate | | 4 | | | | | | | 1 | 4.0 |
| Retina, Atrophy | | 2 | | | | | | | 1 | 2.0 |
| Harderian Gland | | + | + | + | + | + | + | + | + | 10 |
| Pigmentation, Porphyrin | | | 2 | 1 | | 2 | | 1 | 2 | 5 1.6 |

Urinary System

| | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|-------|
| Kidney | + | + | + | + | + | + | + | + | + | + |
| Nephropathy | | | 1 | | | | | | 1 | 1.0 |
| Nephrosis | 1 | 1 | 1 | | 1 | 1 | | 2 | 1 | 7 1.1 |
| Renal Tubule, Mineralization | | | | | | | 1 | | 1 | 1.0 |
| Renal Tubule, Necrosis | | | 3 | | | 4 | | | 2 | 3.5 |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | 10 |

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

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- 2) Mild 4) Marked

Experiment Number: 99023-01

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: beta-Myrcene

CAS Number: 123-35-3

Date Report Requested: 10/19/2014

Time Report Requested: 12:49:25

First Dose M/F: NA / NA

Lab: BAT

**F 344/N Rat Female
4.0 G/KG**

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

TOTALS*Alimentary System**

| | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|--------|
| Esophagus | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | 10 |
| Liver | + | + | + | + | + | + | + | + | + | + | 10 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | 10 |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | 10 |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | 10 |
| Inflammation, Acute | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 3 | 10 2.8 |
| Ulcer | 2 | 2 | | | | | 3 | | | 3 | 2.3 |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | 10 |

Cardiovascular System

| | | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|---|----|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | 10 |
| Heart | + | + | + | + | + | + | + | + | + | + | 10 |

Endocrine System

| | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | 10 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | 10 |

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

- 1) Minimal 3) Moderate
- 2) Mild 4) Marked

Experiment Number: 99023-01

Test Type: 90-DAY

Species/Strain: Rat/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: beta-Myrcene

CAS Number: 123-35-3

Date Report Requested: 10/19/2014

Time Report Requested: 12:49:26

First Dose M/F: NA / NA

Lab: BAT

F 344/N Rat Female
4.0 G/KG

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

***TOTALS**

| | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|----|
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | 10 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | 10 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | 10 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | 10 |

General Body System

NONE

Genital System

| | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|----|
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | 10 |
| Ovary | + | + | + | + | + | + | + | + | + | + | 10 |
| Uterus | + | + | + | + | + | + | + | + | + | + | 10 |

Hematopoietic System

| | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|--------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | 10 |
| Lymph Node, Mandibular | M | M | M | M | M | M | M | M | M | M | 0 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | 10 |
| Spleen | + | + | + | + | + | + | + | + | + | + | 10 |
| Atrophy | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 10 3.8 |
| Thymus | + | + | + | + | + | + | + | + | + | + | 10 |
| Necrosis | 3 | 3 | 3 | 3 | | 1 | 1 | 4 | 3 | | 8 2.6 |

Integumentary System

| | | | | | | | | | | | |
|---------------|---|---|---|---|---|---|---|---|---|---|----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | 10 |
| Skin | + | + | + | + | + | + | + | + | + | + | 10 |

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F 344/N Rat Female
4.0 G/KG

| DAY ON TEST | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

***TOTALS**

| | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---------|
| Skin | + | + | + | + | + | + | + | + | + | + | 10 |
| Musculoskeletal System | | | | | | | | | | | |
| Bone | + | + | + | + | + | + | + | + | + | + | 10 |
| Nervous System | | | | | | | | | | | |
| Brain | + | + | + | + | + | + | + | + | + | + | 10 |
| Respiratory System | | | | | | | | | | | |
| Lung | + | + | + | + | + | + | + | + | + | + | 10 |
| Alveolus, Necrosis, Acute | | | | | | 4 | | | | | 1 4.0 |
| Metaplasia, Osseous | | | | | | | | | | | 1 1.0 |
| Nose | + | + | + | + | + | + | + | + | + | + | 10 |
| Inflammation, Suppurative | 1 | 1 | 2 | | 2 | 4 | 1 | 1 | 2 | 2 | 9 1.8 |
| Olfactory Epi, Degeneration | 4 | 4 | 4 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 10 3.8 |
| Respirat Epi, Necrosis | 4 | 4 | 4 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 10 3.8 |
| Trachea | + | + | + | + | + | + | + | + | + | + | 10 |
| Special Senses System | | | | | | | | | | | |
| Eye | + | + | + | + | + | + | + | + | + | + | 10 |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | 10 |
| Pigmentation, Porphyrin | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 10 4.0 |
| Lacrimal Gland | | | | | | | | | | | 1 |
| Epithelium, Degeneration | | | | | | | | | | | 1 1 1.0 |

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|-------------|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | |

*TOTALS

Urinary System

| | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|-------|
| Kidney | + | + | + | + | + | + | + | + | + | + | 10 |
| Atrophy | | | | | | | | | | | 4 |
| Renal Tubule, Mineralization | 1 | | | | | | | | | | 1 1.0 |
| Renal Tubule, Necrosis | | 4 | | 4 | | | | | | | 2 4.0 |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | 10 |

** END OF REPORT **

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